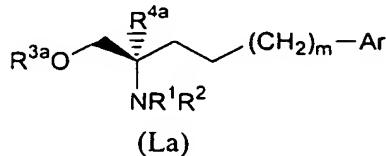
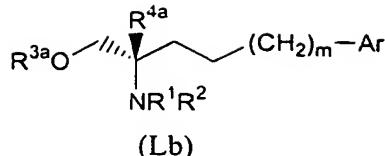


WHAT IS CLAIMED IS:

1. A compound of formula (La) or (Lb):



or



wherein:

R^1 and R^2 are the same or different and each represents a hydrogen atom or an amino protecting group;

R^3a represents a hydrogen atom or a hydroxy protecting group or when R^1 is a hydrogen atom;

R^2 and R^{3a} taken together form a group of formula $-(C=O)-$;

R^{4a} represents a C_1 - C_{20} alkyl group, a C_2 - C_{20} alkyl group interrupted with a heteroatom(s), a C_1 - C_{20} alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{20} alkynyl group, a C_3 - C_{20} alkynyl group interrupted with a heteroatom(s), a C_2 - C_{20} alkynyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{20} alkenyl group, a C_3 - C_{20} alkenyl group interrupted with a heteroatom(s), a C_2 - C_{20} alkenyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{20} alkyl group which is substituted with an aryl group(s) or a heteroaryl group(s) and interrupted with a heteroatom(s), or a cycloalkyl group; m represent an integer from 0 to 4;

Ar represents an aryl group, a heteroaryl group, an aryl group substituted with 1 to 5 substituents selected from substituent group a, a heteroaryl group substituted with 1 to 5 substituents selected from substituent group a, with the proviso that when Ar is an aryl group, R¹ is not a hydrogen atom and R² and/or R^{3a} do not represent a hydrogen atom; wherein substituent group a represents a halogen atom, a lower alkyl group, a halogenated lower alkyl group, a lower alkoxy group, a lower alkylthio group, a carboxyl group, a lower alkoxy carbonyl group, a hydroxyl group, a lower aliphatic acyl group, an amino group, a lower mono-alkylamino group, a lower di-alkylamino group, a lower aliphatic acylamino group, a cyano group, and a nitro group.

2. A compound according to claim 1 wherein said compound has a formula (La).

3. A compound according to claim 1 or 2 wherein R^1 is a hydrogen atom.

4. A compound according to claim 1 or 2 wherein R² and R^{3a} taken together form a group of formula -(C=O)-.

5. A compound according to claim 1 or 2 wherein R^{3a} is a hydrogen atom.

6. A compound according to claim 1 or 2 wherein R^{4a} is a C₁-C₁₀ alkyl group, a C₂-C₁₀ alkyl group interrupted with a heteroatom(s), a C₁-C₁₀ alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkynyl group, a C₃-C₁₀ alkynyl group interrupted with a heteroatom(s), a C₂-C₁₀ alkynyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkenyl group, a C₃-C₁₀ alkenyl group interrupted with a heteroatom(s), a C₂-C₁₀ alkenyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkyl group which is substituted with an aryl group(s) or a heteroaryl group(s) and interrupted with a heteroatom(s), or a C₅-C₁₀ cycloalkyl group.

7. A compound according to claim 1 or 2 wherein R^{4a} is a C₁-C₁₀ alkyl group, a C₂-C₁₀ alkyl group interrupted with a heteroatom(s), a C₁-C₁₀ alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkynyl group, a C₂-C₁₀ alkenyl group, or a C₅-C₁₀ cycloalkyl group.

8. A compound according to claim 1 or 2 wherein R^{4a} is a C₁-C₁₀ alkyl group.

9. A compound according to claim 1 or 2 wherein R^{4a} is a C₁-C₆ alkyl group.

10. A compound according to claim 1 or 2 wherein R^{4a} is a methyl group or an ethyl group.

11. A compound according to claim 1 or 2 wherein Ar is a phenyl, furyl, thienyl, benzothienyl group, or a phenyl, furyl, thienyl, or benzothienyl group, said groups optionally being substituted with 1 to 4 substituents selected from substituent group a.

12. A compound according to claim 1 or 2 wherein Ar is a thienyl group or a thiophenyl group substituted with 1 to 4 substituents selected from substituent group a.

13. A compound according to claim 1 or 2 wherein Ar is a benzothienyl group or a benzothienyl group substituted with 1 to 4 substituents selected from substituent group a.

14. A compound according to claim 1 or 2 wherein m is 0 or 1.

15. A compound according to claim 1 or 2 wherein substituent group a is a halogen atom, a hydroxyl group, a lower alkyl group, a halogenated lower alkyl group, a lower alkoxy group, a carboxyl group, a lower aliphatic acyl group, a lower aliphatic acylamino group, an amino group, a cyano group, or a nitro group.

16. A compound according to claim 1 or 2 wherein

R^1 is a hydrogen atom;

R^2 and R^{3a} taken together form a group of formula $-(C=O)-$;

R^{3a} is a hydrogen atom;

R^{4a} is a C_1 - C_{10} alkyl group, a C_2 - C_{10} alkyl group interrupted with a heteroatom(s), a C_1 - C_{10} alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{10} alkynyl group, a C_3 - C_{10} alkynyl group interrupted with a heteroatom(s), a C_2 - C_{10} alkynyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{10} alkenyl group, a C_3 - C_{10} alkenyl group interrupted with a heteroatom(s), a C_2 - C_{10} alkenyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{10} alkyl group which is substituted with an aryl group(s) or a heteroaryl group(s) and interrupted with a heteroatom(s), or a C_5 - C_{10} cycloalkyl group;

m is 0 or 1;

Ar is a phenyl, furyl, thienyl, benzothienyl group, or a phenyl, furyl, thienyl, or benzothienyl group, said groups optionally being substituted with 1 to 4 substituents selected from substituent group a; and

substituent group a is a halogen atom, a hydroxyl group, a lower alkyl group, a halogenated lower alkyl group, a lower alkoxy group, a carboxyl group, a lower aliphatic acyl group, a lower aliphatic acylamino group, an amino group, a cyano group, or a nitro group.

17. A compound according to claim 16 wherein

R^{4a} is a C_1 - C_{10} alkyl group, a C_2 - C_{10} alkyl group interrupted with a heteroatom(s), a C_1 - C_{10} alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{10} alkynyl group, a C_2 - C_{10} alkenyl group, or a C_5 - C_{10} cycloalkyl group; and

Ar is a thienyl group or a thienyl group substituted with 1 to 4 substituents selected from substituent group a.

18. A compound according to claim 16 wherein

R^{4a} is a C_1 - C_{10} alkyl group; and

Ar is a benzothienyl group or a benzothienyl group substituted with 1 to 4 substituents selected from substituent group a.

19. A compound according to claim 16 wherein

R^{4a} is a C_1 - C_6 alkyl group; and

Ar is a benzothienyl group or a benzothienyl group substituted with 1 to 4 substituents selected from substituent group a.

20. A compound according to claim 18 wherein

R^{4a} is a methyl group or an ethyl group; and

Ar is a benzothienyl group or a benzothienyl group substituted with 1 to 4 substituents selected from substituent group a.

21. A compound according to claim 18 wherein

R^1 is a hydrogen atom;

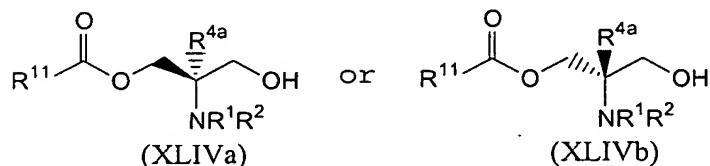
R^2 and R^{3a} taken together form a group of formula $-(C=O)-$;

R^{3a} is a hydrogen atom;

R^{4a} is a methyl group or an ethyl group;

Ar is a benzothienyl group or a benzothienyl group substituted with 1 to 4 substituents selected from substituent group a.

22. A process for the preparation of a compound of a formula (XLIVa) or (XLIVb)



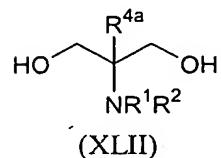
wherein:

R^1 and R^2 are the same or different and each represents a hydrogen atom or an amino protecting group; R^{4a} represents a C_1 - C_{20} alkyl group, a C_2 - C_{20} alkyl group interrupted with a

heteroatom(s), a C₁-C₂₀ alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₂₀ alkynyl group, a C₃-C₁₀ alkynyl group interrupted with a heteroatom(s), a C₂-C₂₀ alkynyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₂₀ alkenyl group, a C₃-C₂₀ alkenyl group interrupted with a heteroatom(s), a C₂-C₂₀ alkenyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₂₀ alkyl group which is substituted with an aryl group(s) or a heteroaryl group(s) and interrupted with a heteroatom(s), or a cycloalkyl group; and

R¹¹ has the same meaning as that indicated above for R^{4a};

which process comprises the selective acylation of one hydroxyl group of a 2-substituted 2-amino-1,3-propanediol derivative of formula (XLII)



(wherein R¹, R² and R^{4a} are as defined above)

with a carboxylic acid ester derivative of formula (XLIII)

R¹¹COOCH=CH₂ (XLIII)

(wherein R¹¹ is as defined above)

in the presence of a lipase to afford a 2-substituted 2-amino-1,3-propanediol mono-ester derivative of formula (XLIVa) or (XLIVb).

23. A process for preparation according to claim 22 wherein one of R¹ and R² is a hydrogen atom and the other one is an amino protecting group.

24. A process for preparation according to claim 22 or 23 wherein R^{4a} is a C₁-C₁₀ alkyl group, a C₂-C₁₀ alkyl group interrupted with a heteroatom(s), a C₁-C₁₀ alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkynyl group, a C₃-C₁₀ alkynyl group interrupted with a heteroatom(s), a C₂-C₁₀ alkynyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkenyl group, a C₃-C₁₀ alkenyl group interrupted with a heteroatom(s), a C₂-C₁₀ alkenyl group substituted with an aryl group(s) or a heteroaryl group(s), a C₂-C₁₀ alkyl group which is substituted with an aryl group(s) or a heteroaryl group(s) and interrupted with a heteroatom(s), or a C₅-C₁₀ cycloalkyl group.

25. A process for preparation according to claim 22 or 23 wherein R^{4a} is a C_1 - C_{10} alkyl group, a C_2 - C_{10} alkyl group interrupted with a heteroatom(s), a C_1 - C_{10} alkyl group substituted with an aryl group(s) or a heteroaryl group(s), a C_2 - C_{10} alkynyl group, a C_2 - C_{10} alkenyl group, or a C_5 - C_{10} cycloalkyl group.
26. A process for preparation according to claim 25 wherein R^{11} is a C_1 - C_{20} alkyl group, or a C_1 - C_{20} alkyl group substituted with an aryl group(s) or a heteroaryl group(s).
27. A process for preparation according to claim 24 wherein R^{11} is a C_1 - C_{20} alkyl group, or a C_1 - C_{20} alkyl group substituted with an aryl group(s) or a heteroaryl group(s).
28. A process for preparation according to claim 22 or 23 wherein R^{11} is a C_1 - C_{20} alkyl group, or a C_1 - C_{20} alkyl group substituted with an aryl group(s) or a heteroaryl group(s).